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COMMERCIAL CLUB

SALT LAKE CITY

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SALT LAKE CITY AND THE STATE OF UTAH

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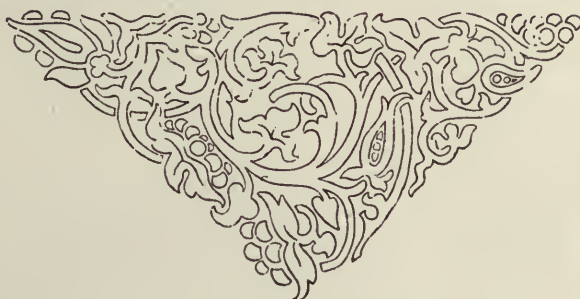


SALT LAKE CITY, A MODERN METROPOLIS



SALT LAKE CITY'S EVERY STREET IS A BOULEVARD, ONE HUNDRED THIRTY-TWO FEET WIDE, LINED WITH ROWS OF TREES AND GREEN PARKING

SALT LAKE CITY — AND THE — STATE OF UTAH



Issued by
Commercial Club Publicity Bureau, Salt Lake City /
Published by
Sunset Magazine Homeseekers' Bureau of Information



LIBERTY PARK AND THE WASATCH RANGE; A DELIGHTFUL CONTRAST—WINTER IN THE MOUNTAINS, SUMMER IN THE PARK.



HOME OF THE SALT LAKE CITY COMMERCIAL CLUB

Readers are invited to address the Commercial Club Publicity Bureau, Salt Lake City, for information about any subject in which they are especially interested. The Bureau is maintained for the purpose of supplying accurate information about Salt Lake City and Utah, and all inquiries receive careful, intelligent attention. No charge is made for information supplied by the Bureau.

Here's no refrain of siren strain
 To lure your wealth away;
 No fairy flight of fancy light
 To while away a day;
 No story old of fleece of gold
 Awaiting hero's call;
 No fable gay; no airy lay;
 Some simple facts—that's all.

F o r e w o r d



SALT LAKE CITY and Utah are good places to visit and good places in which to live. They have been called peculiar. They are peculiar in this, that their people combine contentment with the courage, optimism and progressiveness that have created the great West; with the spirit that has wrung millions from the granite hills, made homes in the wilderness, built great cities and turned the deserts into gardens.

Their people are content because they find here the opportunities for true happiness in fruitful avenues for investment and labor; because they live in an unsurpassed climate, amid beautiful surroundings, high-class citizenship, superior educational advantages and unequaled fields for recreation and enjoyment. They are busy, happy and sensible.

Utah is not a boom community. It is enterprising, progressive and developing rapidly, but its development has been and is along the same lines that appeal to the one seeking safe investment or a most desirable place in which to make a home. It seeks to attract only investors looking for legitimate and permanent fields in which to employ their means, and homeseekers who wish to become part of a progressive, moral community and to contribute their share to the upbuilding of a great commonwealth.

Salt Lake City's commanding geographical location makes it the natural industrial, financial and transportation center of the inland West. It is the capital of a great state, which in itself is an empire so rich in opportunities and resources that, bounteous though the yield in the past has been, the possibilities have scarcely been indicated. Here are hundreds of thousands of acres of land of proved fertility, only a small part of which has been brought under cultivation; minerals, the known extent and value of which increase day by day; natural conditions which make manufacturing possible and profitable; and a climate which has awakened the enthusiasm of all who have experienced it since one of the first white visitors wrote in 1776 his eloquent tribute to the "balmy air" of Utah.

The products of Utah's soil range from cotton to barley, from figs to apples; its commercial minerals from coal to gold. Its matchless inland sea gives to a large portion of the state the saline atmosphere of the seacoast, mingled with the dry, bracing breezes of the mountains. Its uplands have scenery rivaling the Alps. Its mountain streams have latent power a hundredfold in excess of that now utilized.

What Utah needs most to bring its great resources to their full development is people; people like those it has now—good, honest, industrious, progressive, intelligent people. We do not care whence they come or what their previous condition has been, for Utah is of the West and the West does not ask a man who he is and what he has done, but what he is and what he can do.

This book is designed to tell such people something about Utah and its capital city; what they are and what they promise to become. The statements made in it will stand investigation. In fact, if the book leads to an intelligent investigation of this region it will have accomplished its mission.



PACKARD FREE LIBRARY, SALT LAKE CITY



MOUNTAIN SOURCES OF SALT LAKE CITY'S WATER SUPPLY



UTAH'S CAPITOL, NOW IN COURSE OF CONSTRUCTION
R. KLETTING, ARCHITECT

THE CITY AND ITS SURROUNDINGS

Salt Lake City is in a nook, or elbow, on the western slope of the Wasatch mountains, while the semi-distant peaks of the Oquirrh range are to the west and south. The Jordan river passes through the western part of the city on its way from Utah Lake to Great Salt Lake. Numerous snow-fed streams of pure water find their way through the valley to the river and lake from magnificent mountain gorges, giving a water supply unequalled for purity and sufficient in quantity to supply many times the present population. Hot springs of mineral water, superior to many of the noted medicinal waters of Europe, are in the northern part of the city.

Almost within sight from the streets of the city are mountain dells of rare beauty and attractive summer resorts beside mountain lakes that for beauty rival any spot between the seas. One may have in the Salt Lake valley the unique experience of visiting banks of perpetual snow, gathering fruit and flowers and taking a "salt water bath," all within the space of a few hours. The bases of the mountains touch the fertile valley on one side and Great Salt Lake on the other. No other spot is able to offer the salt air of the ocean, the refreshing breezes of the mountains and the matchless dry atmosphere which makes the West famous.

Nature has aided man in making Salt Lake City one of the most beautiful in all the world. Overlooking a great valley, with the shimmering water of the inland sea at its feet, no better spot on which to build a city could have been found in all the West. From the University campus, on a bench several hundred feet higher than the business portion of the city, one has a view the beauty of which will cling to him as long as memory lasts. At his feet are the broad, tree-lined streets of the city, with neat and attractive homes. Here and there a great mansion or a lofty steeple towers above the foliage. Further on are stately office buildings, with the magnificent City and County building in the midst of a beautiful park to the south and the world-famous Mormon Temple on the north. Across the valley, beyond the emerald stretches of field, stand the Oquirrh mountains, in their enveloping blue haze. To the east are the richly colored slopes of the Wasatch and beyond are great mountain peaks, many of them more than ten thousand feet above sea level, wearing their caps of snow. To the west, flashing in the sunlight



WALKER BANK BUILDING, SALT LAKE CITY

washed daily, so that no dust offends. Streams of mountain water flow in the gutters on both sides of the street. Splendid buildings, one of them the tallest business structure between the Missouri river and the Pacific Coast, are on the principal streets and between them are well kept business blocks with attractive shop windows.

This is the city itself. But Salt Lake City is only part of the glory of the region. It is the natural center from which one goes to visit some of the choicest parts of the continent. It is here that the tourist should come on his way to visit the Yellowstone National Park, the world's wonderland. In the rugged stretches of San Juan county, Utah, he will find another wonderland, containing the world's greatest natural bridges, one of which has an arch so high that the greatest ship that ever sailed the seas could pass beneath it without dipping the pennant on its topmast. Here also the tourist would find the relics of the Cliff Dwellers, who passed from the earth centuries ago, and he might employ himself trying to trace their unknown history from the hieroglyphics and utensils left behind. On his return journey he could visit the Book Cliffs, where the storms of ages have carved from the sandstone temples, minarets, castles and palaces so weird and grotesque as to defy description.

And in the near future, when the projected railroad has been built to the Grand Canyon of the Colorado, it will be from Salt Lake City that the traveler will set out to visit this, the most wonderful chasm in the world, passing en route through fertile valleys, majestic mountains and wide stretches of upland.

like a mighty gem, is Great Salt Lake, more than eight times larger than the Dead Sea of Palestine and with water so dense that the human body cannot sink in it. Many islands, which are the tops of submerged mountains, project above its surface and the water is clear and sparkling. The sunsets across the lake are most beautiful and have been the inspiration of some of the gems of America's greatest artists.

A ride through the city does not dispel the impression gained on the heights above. The streets are broad and well kept, many of them paved their entire length. An abundant water supply makes it possible to keep the surroundings of all dwellings green and masses of flowers greet the eye. Roses bloom in Salt Lake City from June until November. Many of the streets in the residence portions are parked on the sides or in the middle and all are shaded by magnificent trees.

The business portion of the city is paved throughout and the streets are



FEDERAL BUILDING, SALT LAKE CITY



CHILDREN'S PLAYGROUND, SALT LAKE CITY

CHARACTER OF CITIZENSHIP

Salt Lake City has an interesting history. Its pioneer residents labored with unusual difficulties in its earlier years. Remote from other civilized communities and almost without means of communication with them, the pioneers were compelled to create for themselves the advantages their location did not provide. Thus were developed builders, artists, doctors, nurses, actors, musicians, at the command of necessity. The existence of the people required that they wring sustenance from the soil, which would not yield it by natural means; hence, irrigation was practiced from the first by the pioneers in Salt Lake City.

Regardless of the social and religious conditions that existed in the earlier years, which have no place in this article, no one familiar with the early history of the city can fail to appreciate and admire the sturdy heroism of the men and women who laid the foundations of the present city under adverse physical conditions probably without a parallel in the history of the American frontier.

The descendants of the pioneers, who constitute part of the population of the city today, retain the self-reliant spirit of their ancestors. Associated with them in making up the citizenship are other progressive people from all portions of the United States and from foreign countries. It is a cosmopolitan population, persons of northern European birth or descent predominating. The non-Caucasian races have very small representation in the city and state, and Salt Lake City has no "foreign quarter."

The city's population is stable. Most persons who come here seeking a new home like the place and stay. The striking feature of residence property improvement, which always causes comment from visitors, is due to the fact that an unusually large proportion of the citizens own their homes and take a natural pride in making them as attractive as possible.



SALT LAKE CITY APARTMENT BUILDINGS

SCHOOLS, CHURCHES AND CLUBS

The city is the natural educational, social and religious center of the intermountain West. The state of Utah has the smallest percentage of illiteracy of any state in the Union, according to P. P. Claxton, United States Commissioner of Education. Salt Lake City clubs and club buildings are among the best in the country and the city's religious structures in number, cost and beauty probably surpass those of any other city of similar size in the world.

There are thirty-six grammar schools in the city. Annual salaries of public school teachers of the city amount to \$550,000. The physical property of the city's public schools is valued at \$2,500,000, and the yearly per capita cost for pupils is slightly more than \$38. The High School course covers four years. The High School offers technical training in mechanical arts, a new building for this purpose having been added in the last year at a cost of more than \$100,000. A new High School building, costing \$700,000, is now in course of construction and will surpass any building for similar purposes between Chicago and the Pacific Coast.

The University of Utah is at the head of the state's school system, and ranks high among western educational institutions. In addition to the usual university courses, it has a School of Mines and courses in law and medicine. The School of Mines has the unusual advantage of being in the heart of the country's greatest metal mining area and it is one of the most popular mining schools in the country. The University attracts pupils from all over the West. Its present enrollment is close to 1,500.

The State Agricultural College, supported jointly by the state and the national government, is at Logan. It maintains several experiment stations, in addition to practical courses in agriculture and allied sciences. These experiment stations are of the highest practical value to the agricultural and live stock interests of the state, as



TEMPLE SQUARE, SALT LAKE CITY

problems are worked out by the experts of the college and results furnished free of charge to citizens.

There are several fine private and sectarian schools in Salt Lake City. The Latter Day Saints University, Westminster College and All Hallows College are among them. Rowland Hall and St. Mary's Academy are noted as fine institutions for the higher education of girls.

The Telluride Power Company maintains a unique technical school. Tuition is free to employees of the company, the object being partly philanthropic and partly to give the company highly trained electrical employees. Graduates of this school are now holding some of the most responsible engineering positions in the United States and Canada.

There are seventy-two church buildings in Salt Lake City. Prominent among them are the Catholic cathedral, the First Presbyterian church, the famous Mormon Temple and Tabernacle and many other splendid religious edifices. Almost every religious denomination is represented, including the Adventist, Baptist, Catholic, Christian, Congregational, Episcopal, Greek, Hebrew, Latter Day Saints, Lutheran, Methodist, Presbyterian, Reorganized, Scientist and Unitarian, besides several other organizations which maintain missions and church activities.

Among the handsome club buildings of the city are those of the Commercial club, Alta club, University club, Elks' club, Y. M. C. A. and the Ladies' Literary club. There are several women's clubs and many fraternal organizations to add to the social life of the city. There are more halls designed for amusement and social purposes than in any other city of the country, population considered.

The city's public charities and organized institutions for the relief of the unfortunate are so efficient that there is practically no destitution and general moral conditions are unusually good.



KEARNS BUILDING, SALT LAKE CITY

ing lake and canyon breezes, maintain the "sensible temperature" in summer, and the lake, with the shelter of the mountains, performs a like service in keeping it up during the winter. Spring and autumn are most delightful. The altitude, the average being 4,360 feet above sea level, is conducive to health, and coughs and colds of a severe nature are rare. It is said by eminent physicians that the combination of mountain and salt-laden air renders the city almost immune from lung troubles. The atmosphere seems soothing to the lungs, its tendency being to add vigor to all parts of the body.

The city is the center of several medicinal springs, some of which are within its limits, that have a wonderful curative effect and salt baths in Great Salt Lake make the city a desirable health resort. Many health-seekers now come to Salt Lake City to take advantage of these medicinal baths.

Salt Lake City has four fine public hospitals and numerous private institutions, all equipped with the most up-to-date appliances and apparatus and attended by skillful physicians and surgeons.

ART AND MUSIC

There is an inspiration in the mountains that always appeals to the artistic nature of man. Vast ranges, stretching away to interminable distance until their misty outlines are lost in the haze; high-walled canyons, down which the streamlets flash, or are dashed to spray from precipitous heights; upland lakes that reflect inverted images of the splendor of the crags and the blue sky; sequestered, flower-

A HEALTH RESORT

Many things combine to make Salt Lake City a health resort. In common with the territory contributory to it, it enjoys the dry, bracing atmosphere of the arid West. Its climate, subject to changes of temperature, is known to meteorological science as "continental climate," having four seasons well marked, and a temperature known as "sensible temperature" throughout the year.

According to the observations of the local weather bureau, covering a period of 35 years, the spring temperature averages from 41.4 to 58.3 degrees Fahrenheit, the summer from 68.3 to 75.5, the autumn from 65.1 to 41.4, while the winter is from 28.8 to 32.9. Although zero weather is sometimes recorded, it is a rare occurrence, and summer temperature seldom passes 90 degrees Fahrenheit. The dryness of the atmosphere, coupled with the alternat-



MASONIC TEMPLE, SALT LAKE CITY



DRIVEWAY AT FORT DOUGLAS, NEAR SALT LAKE CITY

strewn dells, nestling at the bases of snow-capped peaks, ever have and ever will tempt the brush of the artist to reproduce their beauty. Add to these the desert, with its weirdness of form and outline, studded with the fantastic creations of the winds of centuries, with a witchery of color unknown in other lands, and you have enough to call into life all that is latent in the artistic temperament; art creations follow as naturally as night follows day.

The inspiring scenery of the mountains and plains around Salt Lake City has produced works of art which are the peers of any created in modern days and, as an appreciation of art must be present to keep it in life, the metropolis of the mountains has drawn to it all that is best in the art of the country and has become the center of the art life and the art creation of the West.

The state government has lent its patronage to art in the creation of an art institute, where the best works of the artist are exhibited. It has also, by purchase, begun an art collection, known as "The Alice Collection," which is not only of great merit but is unique of its kind, as it belongs all to the people. This has had its effect in increasing the appreciation of art, as well as creating the desire to possess, which has given support to those who follow art as a profession.

There are many Salt Lake artists whose fame has become national and whose work compares with that of any on the continent, both in brush and chisel, and many who drank in the inspiration of the mountains and left for wider fields in which to follow their calling. All of these find deep appreciation at home, as in other places where they chance to cast their lot.

The schools of the city, with the University at their head, have placed art in their curriculum and its growth among the people has become marked and general.

This artistic tendency has passed beyond the bounds of local creation and many collections made by wealthy citizens contain specimens of the almost priceless works of the old masters as well as some of the best works of the modern schools. These rival the best collections in the land, easily leading anything of the character in the West. Many of these collections are thrown open to the public at stated periods and have their effect in bringing about a general artistic uplift.

Salt Lake City has long led the entire West in music. A reason for this is the presence of one of the greatest musical organizations on the continent, the famous Tabernacle choir of five hundred picked voices, and the Tabernacle organ, which is



SOME OF SALT LAKE CITY'S CHURCHES



PAVILION AT SALT AIR BEACH

one of the largest instruments in the world. The daily organ recitals given at the Tabernacle have become known throughout the civilized world and are enjoyed by thousands of visitors every year, besides aiding in advancing all that is best in music among the rank and file of the people at home. The recitals are given without charge.

Both in art and music, the city has produced men and women of more than local reputation. Besides these, there are many composers and artists, scarcely lesser in degree of talent, who either reside in the city or have caught their inspiration in the artistic and musical atmosphere that pervades it.

AMUSEMENTS

The founders of Salt Lake City took into consideration the remoteness of its situation at the time they reached the valley and, with foresight and wisdom, set about to provide amusement for the people. One of the first public buildings of the city was an amusement hall, to be followed later by a theater which still stands after fifty years and ranks with the most commodious of the country at the present time. Great figures in the amusement world were attracted by the offer of rich rewards and came from the East. Even before the city was connected by rail with the outside world, Salt Lake City was established as an amusement center. The center, created then, remains today, keeping pace with the city's development in a business way.

The progress from the little amusement hall of the early days to five large theaters of the first class and twelve others, with a total seating capacity of more than eight thousand, shows the development of the city along amusement lines.

Some of the leading figures on the American stage own Salt Lake City as their home and many laid the foundations of their success here.

The city is prominent in an amusement way along lines other than theatrical. Several summer resorts near the city rival those of cities four or five times greater than Salt Lake City in population. Best known of these is Saltair, the great bathing resort on the lake, connected with the city by a railroad soon to be electrified and by a splendid automobile highway. The pavilion at Saltair has one of the largest unobstructed dancing floors in the world. As many as 20,000 persons have visited the resort in a single day.

Lagoon, north of the city, and Wandamere, just at the southern edge of the city, are popular resorts. In addition to these, there are several fine public parks in the city and nearby mountain resorts patronized by persons from all over the intermountain country as well as by residents of Salt Lake City.

The city is active and prominent in athletics and clean sport finds ready and constant patronage.





VIEW ON EAST SOUTH TEMPLE STREET, SALT LAKE CITY

FORT DOUGLAS

Fort Douglas, now a regimental post, is three miles east of the city on a bench overlooking the valley. The fort was rebuilt recently and it is hoped that it will soon be made a brigade post. Conditions favor this, as the location is strategic, the water supply ample for 5,000 men and the post reservation, containing 10,000 acres, is well suited to army maneuvers. The post is well improved, with broad, shady avenues, and is frequently visited by residents of Salt Lake City as well as others who desire to enjoy the splendid view of the valley which may be had from the fort.

GROWTH AND IMPROVEMENT

The growth of Salt Lake City has been in proportion to the growth of the country surrounding it. The United States census of 1900 gave the city a population of 53,531 and that of 1910 placed it at 92,777, an average yearly increase of 4,000 in the decade. The improvements made in these ten years will give an idea of the development of the city and, as the development is being maintained, will indicate what may reasonably be expected in the future.

There has been no boom in this period. The growth has been caused by the development of the surrounding country and an increasing knowledge of the city's desirability as a place of residence. More land was reclaimed in this decade in Utah and southern Idaho than in any previous decade, and this had a direct bearing on the population of the region's metropolis. It was also the greatest decade in private and public improvement in the city itself. The character of the city practically changed; old buildings which had served their purpose were removed and replaced by new ones. Street and park improvements were made at an ever increasing rate. It was an era of hotel building. With the new Hotel Utah completed, another great hotel under construction and with many other new but less pretentious hotels, the city is well equipped to handle any convention that may come as well as the regular transient traffic.

Mercantile institutions quickly felt the trade expansion and met it with enlarged quarters and increased facilities, the result being the construction of many splendid business buildings. The business district expanded until now much territory that was residence property only a few years ago is exclusively business property, and the whole city has assumed a decidedly metropolitan aspect.



CITY AND COUNTY BUILDING, SALT LAKE CITY, A NOTABLE PUBLIC STRUCTURE

TRADE AND TERRITORY

Draw a circle with a radius of three hundred miles and Salt Lake City as the center and you will have the territory naturally tributary to the city. This circle will take in all of Utah, most of Idaho, the eastern portion of Nevada, the northern portion of Arizona the western portion of Colorado and the western portion of Wyoming. Now, consider that this area is equal to that of the British Isles and Germany combined, one-third larger than all Scandinavia and equal to the combined area of the New England states and the other Atlantic seaboard states north of South Carolina.



LAKE AT WANDAMERE, A POPULAR SALT LAKE CITY RESORT



SALT LAKE CITY HAS MANY FINE CLUB BUILDINGS

Although much of this territory is taken up with mountain ranges, it contains 60,000,000 acres of tillable land. Of this land 2,000,000 acres are either under irrigation or capable of being irrigated.

The agricultural products of this area are the most varied on the American continent. The upland stretches not susceptible to cultivation contain immense grazing districts supporting hundreds of thousands of cattle, sheep and horses and great forests of pine, spruce, cedar and other useful timber. Almost every known mineral is found in quantity in this territory. It contains deposits of practically all the known hydrocarbons. Its coal measures are so vast that, if the present rate of taking up these lands should continue, it would be five hundred years before the last filing was made. The United States Geological Survey estimates that one county in the state of Utah contains a coal tonnage equal to the total coal tonnage of the state of Pennsylvania and another county has the greatest known deposit of iron.

Topography, distance and transportation facilities make Salt Lake City the natural center of all this territory, an advantage it will always have.

Railroad lines radiate from the city in every direction and more lines are to be completed in the near future. The railroad tonnage out of the city in 1911 was 656,400,000 pounds, not including the business handled through the city from other points for local delivery.

The city's trade for 1911 in mining machinery and supplies alone is estimated at \$7,500,000, one firm of several having headquarters here supplying \$1,740,000. The distributing houses handling agricultural implements and vehicles report an outside business for the year of \$3,500,000. This trade is increasing rapidly, due to the agricultural development of the surrounding region. One saddlery firm made sales to outside points in 1911 of \$500,000. Three houses report a jobbing trade in shelf and building hardware of \$5,500,000. One firm made outside sales in sporting goods of

\$500,000, the total for the city being estimated at \$1,500,000. The dry goods and grocery trade for 1911 reached a total of \$15,000,000, one firm alone handling \$4,000,000. Another firm reports an outside jobbing trade in these lines of \$2,500,000. These figures do not take in the goods sold by outside firms maintaining agencies in the city and using this as a distributing center. In bottled goods, sixty per cent of which was manufactured in the city, the outside trade amounted to more than \$2,000,000. In other manufactured articles, the outside trade was estimated at \$5,000,000. Add to this the estimated value of animals and agricultural products, flour and other commodities not mentioned previously, and a grand total of more than \$60,000,000 is reached.

With the population increasing rapidly; with the completion of many great irrigation projects now under way and intensive agriculture becoming more prevalent; with the assurance of success for "dry farming" by scientific methods, it must follow that the next decade will witness an enormous increase in this trade. When it is considered that the territory is capable of supporting twenty times the population it now has without "crowding," it is easy to see that the city is firmly established as a distributing center and that its growth must be rapid and sure.

AGRICULTURE OF REGION

The soils of Utah and adjoining states are most fertile. They vary in depth, but average between ten feet and twenty feet. As the rainfall of the region is not sufficient to drain through the soil, its fertility has been conserved for ages, making the subsoil as rich as the surface in all the elements of plant food, thus providing a reserve fertility that renders it practically inexhaustible.

The crops these soils are capable of producing are diversified by the climatic conditions of the different localities, ranging from cotton in southern Utah to the hardier grains and grasses in the north and from semi-tropical fruits in the sheltered valleys to the fruits of the north temperate zone. In all localities fruits, grains and forage plants grow to best advantage where local conditions are studied by the husbandman and the proper methods of culture employed. The soils lack nothing except moisture. This is supplied, either by irrigation or by scientific methods of moisture conservation, commonly known as "dry farming."

The territory tributary to Salt Lake City contains 90,000,000 acres adapted to grazing, of which slightly more than one-third is in forest reserves and subject to Government supervision. The estimated value of range animals grazing on these lands at the beginning of 1912 was, according to figures supplied by the Department of Agriculture, \$105,000,000. The raising of farm animals is becoming a profitable industry, as all forage plants grow to great excellence in the deep, fertile soil of the country and climatic conditions over most of the territory render unnecessary heavy winter feeding.



TWELFTH EAST STREET, SALT LAKE CITY, SHOWING PLAN OF PARKING ON RESIDENCE STREETS



FOUR OF SALT LAKE'S HOSPITALS

Of the two great divisions of land culture, 3,500,000 acres are farmed by irrigation, and about 500,000 acres by dry farming. The amount that may be irrigated is limited only by the water supply available. It will be increased by improved methods of farming and the utilization of water that has heretofore been wasted through over-irrigation. Water from artesian wells has come into extensive use in recent years. Prospecting is constantly under way for the further development of these underground sources of supply and has demonstrated that a great portion of the desert lands are underlaid with water that may be made available for irrigation.

The future of dry farming in Utah is assured. Figures prepared by the office of the state statistician show that three-sevenths of the wheat of the state of Utah is produced by this method of cultivation. This proportion is probably too great to apply to the rest of the territory surrounding Salt Lake City, but with the development of drought-resisting grains and grasses and greater knowledge along the lines of moisture conservation, there is every reason to believe that most of the area designated as agricultural lands will be brought under successful cultivation.

A few figures for less than one-tenth of this area may be interesting. The territory produced in grains and seeds, including sugar beets, a yield valued as about \$60,000,000 in 1911. The hay crop in the same year reached a value of \$20,000,000. The orchards produced \$4,000,000, and this does not include the small fruits.

The fruit industry of Utah is increasing rapidly, almost a million trees having been set out in 1912. Dairy products for Utah in 1909 and 1910, the latest authentic figures available, reached a value of \$5,000,000. Estimates place the value in 1912 at a million more. It is safe to say that a valuation of \$10,000,000 for dairy products in the entire territory would not be high. The sheep of the territory produced 90,000,000 pounds of wool. Exact figures on meat products are not available, but a conservative estimate is \$10,000,000.



STOCK AND MINING EXCHANGE, SALT LAKE CITY

MINING AND SMELTING

If all the agricultural lands contributory to Salt Lake City and all the surrounding live stock ranges were unproductive, the city would still be a most important center on account of the great mining country that surrounds it and the enormous traffic due to its smelting industry.

With the greater portion of its mining territory undeveloped the mines of the region produced gold, silver, copper, lead and zinc ores to the value of more than \$87,500,000 in 1911 and the entire value of its mineral pro-

duction, including coal and other hydrocarbons, amounted to \$103,500,000. The state of Utah, according to government reports, contributed \$40,460,000 of this.

The tonnage of precious and semi-precious ores amounted to 11,850,000 for 1911, an increase of more than 2,000,000 tons over the year 1910. Copper furnished the largest item with an output of 196,556,000 pounds of refined copper, of which Utah contributed 125,185,000 pounds.

Almost within sight of the city is the mining camp of Bingham, home of the world's greatest copper mine, the Utah Copper, and many other heavy producers. The Utah Copper mine's output for 1911 was 90,000,000 pounds of refined copper.

Park City, about thirty miles east of Salt Lake City, is one of the greatest silver-lead mining camps of the country. Here are located many mines, almost any one of which would make a district famous. The noted old Ontario mine, which has paid \$13,932,500 in dividends, holds the record for the district, with the Silver King second, and almost as great.

The camp of Alta, a little south of Park City, has a long list of producers to its credit and is still making mining history, while Tintic, to the south of Salt Lake City, is annually pouring out millions in metallic wealth.

Within a hundred miles of Salt Lake City are mines that have paid \$8,973,000 in dividends in the last year.

The mines of southern and eastern Nevada have been developed almost exclusively from Salt Lake City and Salt Lake City's development field extends over into California and down into Arizona. From Pioche on the south to Tonopah, in Rawhide, Seven Troughs, Yerington and a dozen other well-known Nevada camps, almost all the companies holding the big producers have their homes in Salt Lake City and many of the mines were discovered by Utah prospectors. The same may be said of many of the mines of Idaho.



KEARNS ST. ANN'S ORPHANAGE, SALT LAKE CITY



THE GROWING OF ALFALFA IS ONE OF UTAH'S IMPORTANT INDUSTRIES

The iron deposits of the state may be said to be wholly undeveloped. Much of the iron land is held by the Government and is not yet surveyed. Iron county, Utah, alone has the greatest deposits of iron ore known in a similar area of the United States, the potential tonnage running into the billions of tons. There are other deposits that almost equal those of Iron county, many of them lying distant from the railroads, but containing iron sufficient to supply the world for centuries.

Salt Lake City is surrounded by vast coal measures. According to estimates made by the officers of the Geological Survey of the United States, there are more than 33,000 square miles of coal lands in the territory contributory to the city, the total tonnage of which is estimated at more than 300,000,000,000 tons. These figures are staggering, as, at the present rate of consumption, this amount would be sufficient to supply the entire country for almost 1,400 years.

Only a small portion of these fields has been developed, but the value of the coal output in 1911 was \$15,000,000. Many of these deposits are so pure chemically that they are the equal of any other coal on the continent for the manufacture of iron and steel products.

Almost all the deposits of hydrocarbons in the region, except coal and petroleum, lie in eastern Utah. They include gilsonite, tabbyite, ozokerite, lusterite, elaterite, rock asphalt and kindred minerals. Great deposits of sand and lime asphaltum are found in the same locality, few of which have been developed. The known petroleum territory amounts to 10,000 square miles. These deposits have been developed only sufficiently to prove their oil-bearing character, as they are at present comparatively remote from lines of transportation.

Salt leads the non-metallic deposits. The Great Salt Lake is itself a mine of wealth in salt. It has been estimated that the mineral wealth contained in the waters of the lake, if extracted (and the process of extraction is very simple) and marketed at



A YOUNG JEWISH COLONIST ON HIS UTAH FARM



THE WORLD'S GR

The Utah Copper Mine is at Bingham, about thirty miles from Salt Lake City. The ore is loaded by means of steam shovels, twenty-two of which show the "terrace" process by which the mountain is being removed. A railroad track occupies each terrace, being moved from time to time directly from this mine. The ore, after having been placed on railroad cars by the steam shovels, is hauled across the mountains at the right

prevailing prices, would be sufficient to pay the national debt and the expenses of the Government for a hundred years besides. The great salt beds of western Utah, too, might add their apparently inexhaustible quota to the supply from the lake, forming a resource capable of producing unlimited wealth. On the islands of Great Salt Lake are great deposits of guano, while gypsum is found all over the territory.

There are many deposits of kaolin, or china clay, in Utah. One vast deposit near Salt Lake City is more nearly chemically pure than that of Sevres, France, and is capable of producing a tonnage greater than all the mines of France combined. Pure silica sands are plentiful in the region around the city and are capable of being manufactured into the finest grades of glass.

In building stone, the range is from high-grade sandstone to onyx and marble, and sapphires, opals and other gems have also been found.

The smelting industry in the immediate vicinity of Salt Lake City has had a great and steady growth. From the small silver lead plants in the valley, costing less than \$500,000, the industry has grown in fifteen years to six great plants which, with their reduction plants, represent an investment of more than \$20,000,000. These plants are those of the American Smelting & Refining Company at Murray and Garfield, of the International Company at Tooele, of the United States Company at Midvale and of the Utah Consolidated Company and the Yampa Company at Bingham. Other smelting plants of the state are the Independent at Ogden and the Knight at Silver City. The total capacity of the smelters is 20,000 tons daily.



VIEW OF SALT LAKE CITY'S BUSINESS DISTRICT



ST COPPER MINE

h are operated simultaneously. The picture, taken when no shift was at work so that the smoke of the blasting would not obscure the view, as the work progresses. The operations here have been compared with those on the Panama Canal. Ten thousand men gain their livelihood from the picture to the reduction plants at Garfield, a few miles distant. The mine sent 12,824 tons of ore to the reduction plants each day of 1911

Bingham is first in tonnage handled, owing to the great deposits of low-grade ore. The annual tonnage of copper ore at that camp is 5,500,000 out of a total of about 7,000,000 treated in the state.

The Salt Lake smelters lead all others in efficiency and in the saving of the metallic values of the ores treated. In the newest plant, that of the International Smelting & Refining Company at Tooele, there is no improvement in the smelting of ores that has been overlooked and it is regarded as a model plant.

The local smelters treat all the Utah ores and, in addition, draw heavily from adjoining states. The presence of competing plants has broadened the ore market of the state until it leads all others. This, with the fact that deep mining in Utah has led to the almost exclusive production of sulphide ores, calling for a tonnage of carbonate ores for flux, has led to the opening of mining fields that never before had been drawn upon to any considerable extent. As a result of this condition, ores have been shipped to the Salt Lake smelters from all over the mountain region.

The metallic output of the Salt Lake smelters for the past year was:

Gold, 227,856 fine ounces;
value \$4,709,747.

Silver, 12,679,632 fine ounces;
value \$6,973,000.

Copper, 140,293,198 pounds;
value \$17,696,155.

Lead, 136,496,750 pounds;
value \$6,142,353.

Zinc, 11,456,973 pounds;
value \$798,456.

This makes a total valuation
for 1911 of \$36,319,711.

The reduction plants are operated in connection with the smelters of the state. Two of these plants, operated by the



, SHOWING SOME OF THE NEW BUILDINGS



A FEW OF SALT LAKE CITY'S BEAUTIFUL HOMES

Utah Copper Company at Garfield, treated 12,824 tons daily throughout the year 1911, and are prepared to handle 20,000 tons daily when run to their full capacity. Besides these, the Daly West and Silver King mines at Park City handle the concentrating ores of these great mines as well as other ores of the district. The Newhouse mill at Newhouse has a capacity of 5,000 tons daily. The Golden Gate, the Sacramento and the Boston-Sunshine plants at Mercur use the cyanide gold process exclusively.

Salt Lake City is increasing in importance as an ore market every year. It leads in the handling of pyritic ores, and the increase from 1,700,000 tons in 1904 to about 7,000,000 tons in 1911, is without a parallel in the history of ore reduction.

MANUFACTURES

Salt Lake City has built up a considerable manufacturing industry as a result of its position as a distributing center and its other natural advantages. This field offers great opportunities.

Figures compiled by the secretary of the Manufacturers Association of Utah show there are 781 manufacturing plants in the state, fully one-half of which are in or near Salt Lake City. These factories produced in 1911, goods valued at \$66,432,000, gave employment to 14,629 persons and paid in wages \$11,814,000. The cost of raw materials used was \$43,911,000. These figures are exclusive of the smelting plants.

The products of the state's factories range from mining machinery and structural steel to knitted fabrics and include sugar, salt, fire clay, portland cement, candy, chocolate, canned and pickled goods. Some of these products, on account of their fine quality, find markets far removed from home, Utah canned and bottled goods being in constant demand in many eastern cities.

A list of factories that would be assured of success, with raw materials readily



SALT LAKE CITY THEATRES

available, is given by Secretary D. F. Collett of the Manufacturers Association of Utah as follows:

Steel roller mills—Vast iron and coal deposits near at hand.

Woolen mills—Only one now in operation in the state; Utah's wool clip amounts to 22,500,000 pounds annually.

Glass factory—Mountains of silica, 98% pure, close in.

Paper mills—Millions of cords of pulp woods; no mills.

Graphite mills—Vast deposits, 90% pure; close in.

Tanneries—Only one in the state.

Shoe factories—Only one in the state; heavy and steady demand.

Shoe blacking and stove polish—Raw materials in enormous quantity close at hand.

Match factory—Constantly growing demand; all raw materials here.

Vitrified brick—Great deposits of silica and other materials close in; steady demand.

Opalescent brick—All raw materials close in; steady demand.

Cement—Great deposits close at hand.

Canneries (southern portion of state)—Much fruit going to waste.

Pottery—Mountains of purest white and tinted kaolin close in.

These are only a few of the openings for manufacturing plants.

FINANCIAL OPERATIONS

Salt Lake City is the only reserve city for banking institutions in the territory contributory to it. This, of itself, would constitute the city a financial center, but it deserves the title for other good reasons.

Most of the mining operations of the intermountain West are directed from Salt Lake City, as well as irrigation and other enterprises for which large amounts of capital



SALT LAKE CITY HAS THE FINEST HOTELS IN THE MOUNTAIN REGION



UNION STATION, OREGON SHORT LINE AND SALT LAKE ROUTE, SALT LAKE CITY

are required. More than 3,000 large corporations have their center of operations here. From the sworn statements of companies having an annual income of \$5,000 or more, these corporations had an income of \$13,574,887 in 1911. The amount of the incomes of the smaller corporations would increase this materially.

The city has twelve banking institutions, with an aggregate capital and surplus of about six and one-half millions of dollars, and two more banks are in process of organization. The bank clearings in 1911 amounted to \$330,425,000.

The Salt Lake Mining Exchange fixes the value of mining stocks all over the intermountain country, including in this the greater portion of Idaho and Nevada.

Insurance, life and fire, in force in Salt Lake City at the end of the year 1911, amounted to more than \$100,000,000. Utah companies, with general offices in Salt Lake City, wrote more than \$8,000,000 of this. It is estimated that two-thirds of all the business written in the territory centers in Salt Lake City.

RAILROADS

Salt Lake City has six great railroad lines, the Oregon Short Line, the Denver & Rio Grande, the Union Pacific, the Western Pacific, the Southern Pacific and the San Pedro, Los Angeles & Salt Lake. It is the junction point for four of these lines.

The Oregon Short Line connects the city with the north and northwest. It strikes the rich agricultural regions of Idaho and eastern Oregon and the mining camps of Idaho and Montana. It is the only line that enters the famous Yellowstone National Park from the south.

The Denver & Rio Grande connects Salt Lake City with Colorado and the East and taps the great coal belt and other mineral bearing zones of eastern Utah. It passes through a country unrivaled for scenic grandeur, as well as forming a line in one of the great transcontinental arteries of commerce. The Western Pacific completes this link to the Pacific Coast. It traverses a great region whose possibilities have scarcely been touched. It is built for miles in Utah on a bed of solid salt, which covers an area nine miles by thirty miles, and has an average depth of ten feet.

The San Pedro, Los Angeles & Salt Lake, "The Salt Lake Route," connects the city with southern California. It reaches the rich mineral and agricultural portions of southern Utah, southern Nevada and northern Arizona, besides being the outlet for one of the greatest wool-producing regions of the country.

The Union Pacific, in connection with the Southern Pacific, was the first transcontinental line—the first to reach beyond the Missouri and actually cross the "backbone of the continent" to the Pacific. The Union Pacific connects Salt Lake City with Wyoming and the East and the Southern Pacific affords connection with the Pacific



VIEW OF OGDEN, UTAH'S SECOND CITY

Coast, traversing northern Utah and Nevada. The Southern Pacific crosses Great Salt Lake in Utah on a trestle, a unique and world famous piece of railroad engineering.

Other lines of importance are projected for Salt Lake City, one of which, the Moffatt line, has already been built a considerable distance westward from Denver. This line, when completed, will open the great hydrocarbon fields of eastern Utah and an agricultural area constituting one-third of the state.

The Salt Lake & Ogden railroad and the Ogden Rapid Transit systems give Salt Lake City connection by electric railway with Brigham City on the north and with intermediate points. Work has begun on another electric railway system to connect the city with the rich Utah valley on the south. Owing to the abundance of water power, electric transportation furnishes an attractive field for development and several additional lines are under consideration.

E. H. Harriman once expressed his conviction that Salt Lake City would become one of five great railroad and commercial centers of the United States. Present conditions and future expectation indicate that in this, as in many other instances, his judgment was good.

THE STATE OF UTAH

The state of Utah lies almost wholly within the great basin between the main range of the Rocky mountains on the east and the Sierra Nevada mountains on the west. It lies between meridians 109 and 114, west longitude, and between parallels 37 and 42 north latitude, the parallels which embrace Colorado, Kansas, Missouri, Virginia, Italy, Turkey and Korea.

The state contains 54,380,544 acres, slightly more than one-fifth of which is covered with water. The average elevation of Utah is about two-thirds of a mile above sea level. The highest point is slightly more than 12,000 feet, while most of the valleys are less than 5,000 feet. All the valleys are fertile and suitable for agriculture in some form.

The general topography of the state is mountainous. The mountains rise abruptly from the valleys and plateaus, resembling the Alps in this respect as well as in others. A chain of valleys passes through the state from north to south. This area was once the bed of a great inland sea of which Great Salt Lake is the remnant. The valleys are connected by deep canyons with smaller valleys branching out here and there where the Wasatch and Uintah mountains stand, or where the smaller detached ranges diversify the surface of the state. There are four major systems of drainage, the Green, the Colorado, the Jordan and the Bear. The first two empty into the Gulf of California, and the last two into Great Salt Lake. There are many streams which follow the



BATHING IN THE GREAT SALT LAKE IS A FAVORITE DIVERSION FOR RESIDENTS AND VISITORS

canyons and lead to the main drainage systems and, as the average annual precipitation of the state is from 5 to 20 inches, varying with locality, the state may be said to be fairly well watered. Most of the precipitation falls in the form of snow.

Owing to the varying altitude of the great valleys and to the fact that most of the mountains have a sunward slope, there is a variation of climate with attendant variation of agriculture from hardy grains and fruits to cotton and figs. The soil is very fertile, almost all of it having been formed by the washing down of the mountains, the silt having been spread out over the valleys in depth varying from five to twenty feet and often much greater. The shore line of the ancient lake that once covered these valleys and plateaus may be traced for hundreds of miles on the mountain sides. The comparatively slight rainfall of the summers has prevented the washing or leaching of the soils, which have thus retained their virgin fertility and are rich in the elements of plant food. Moisture is supplied through irrigation and scientific tillage.

The mountain ranges of the state are among the most highly mineralized of the country and the state's resources are so varied, both in the vegetable and mineral kingdoms, that were it separated from the rest of the world its people could produce and enjoy all the necessities and most of the luxuries of civilized life by utilizing only that which is produced within its borders.

The lands of the state are in three general divisions—mineral, grazing and agricultural. These overlap in a measure. Of the agricultural lands, 1,400,000 acres are classed as improved land, with 1,150,000 acres actually under irrigation. The acreage of irrigable lands is placed at 8,000,000. About 14,000,000 acres are suitable for dry farming, with the possible exception of a few places where the annual rainfall is less than ten inches.

IRRIGATION AND WATER POWER

Utah is the birthplace of Anglo-Saxon irrigation on the American continent. When the pioneers came into the Salt Lake valley in 1847 they beheld an expanse of dry, unyielding soil. Among the first works they commenced was the building of an irrigation canal and the sequel is a prosperous West.

Utah has expended slightly more than \$13,800,000 on irrigation projects. There are projects now under way on which almost \$13,000,000 more will be expended.

Chief among the recent projects in the state is the great Government work, known as the Strawberry project, on which almost \$3,000,000 has been expended. It has been under construction since 1906 and will furnish water for the irrigation of 65,000 acres of mesa and bottom lands in the Utah valley south of Provo. The reservoir will impound 110,000 acre-feet of water, which will be conveyed through a tunnel 19,000 feet



ENTRANCE TO MINE, CASTLE VALLEY COAL COMPANY

long extending through the Wasatch mountains under the rim of the Great Basin at a depth of 1,400 feet.

Figures given by the state statistician show 1,150,000 acres of irrigated lands with projects under way which will increase the irrigated area to 2,000,000 acres.

The amount of irrigable lands in the state is practically limited only by the water supply. The Water Resource Division of the United States Geological Survey, which has twenty measuring stations on the principal streams of the state, says:

"The total annual run off from the streams named is 10,879,700 acre-feet. Over 10,000,000 acre-feet of this runs to waste annually. Assuming a duty of four acre-feet per acre of land, the waste water from the streams named would provide sufficient water to irrigate 2,500,000 acres. The average value of improved farms in Utah is \$100 per acre. Therefore, if the waste waters of the state were utilized for reclamation of new lands, the property value of the state would be increased \$250,000,000."

Some idea of the latent energy contained in the water power sites of the state is conveyed by some figures given by the same authority—the United States Geological Survey. The present developed water power of the state is 50,624 brake horse-power. The possibilities are stated by E. C. LaRue of the Geological Survey, as follows:

"By actual examination in Utah, the Geological Survey has discovered what appear to be sites with an aggregate possible development of 128,000 brake horse-power. These examinations cover only a small portion of the state. No doubt, 500,000 brake horse-power would be a conservative estimate of the undeveloped water power of the state today."

There is a constant and increasing demand for power and it finds a ready market.

MINERAL RESOURCES

Utah has become one of the great mining states, not only in production, which at present reaches beyond the half billion mark, but also in the known extent of its mineral territory and the varied minerals it possesses. Almost every metal known is found in the state. Although the fact is not generally known, the ore from which M. and Mme. Curie extracted the first sample of radium came from the La Sal mountains in southeastern Utah.

The state leads the country in the production of silver-lead ores. Its iron deposits are the wonder of the world, one in Iron county having been estimated by an eminent authority to contain 400,000,000 tons of



MINE OF INDEPENDENT COAL & COKE CO.



WESTERN PACIFIC TRAIN, CROSSING THE GREAT SALT BED IN TOOELE COUNTY

magnetic and hematite ore—the greatest deposit yet discovered. The state's coal measures are so vast that they could supply the world for ages at the present rate of consumption and the state also contains almost all the other known hydrocarbons.

The principal metal mining districts are Bingham, Park City, Tintic, Beaver, Mercur and Marysvale, but rich deposits of precious and semi-precious metals are known to exist all over the state and there are several other mining districts that are making history. Some of these, such as the Deep Creek district, are capable of supplying a great tonnage but the lack of transportation facilities has limited production. It is estimated that not more than twenty per cent of the known mineral territory of the state has been developed.

The mining history of the state begins with the discovery of the first mine in 1863. The total bullion value from the metal mines of the state up to January 1, 1911, was \$526,271,890 and dividends paid by these mines in that period amounted to \$93,570,368.

The history of the development of copper mining in the state is interesting. From a production of 965,708 pounds of copper, valued at \$76,563 in 1890, which was secured mostly as a by-product with other ores, the copper mining industry has grown until the production in 1911 reached 140,293,198 pounds, valued at \$17,396,156. These ores were reduced by the great smelting plants in the state.

Utah stands first in the production of silver, with \$6,973,000 out of a total production of \$30,854,500 in the United States in the year 1911. Montana was second, with Nevada, Colorado and Idaho following in order.

The total mineral production of Utah in 1910 was \$39,233,716, of which the metal mines produced \$33,028,909. The metal mine production in 1911 was \$34,845,812, an increase for the year of \$1,816,903. It was a year marked by unusual development work at many of the principal properties.



UTAH'S WOOL OUTPUT RUNS INTO THE MILLIONS ANNUALLY



UTAH'S WHEAT YIELD IS 27.1 BUSHELS AN ACRE, THREE-SEVENTHS GROWN ON UNIRRIGATED LAND

The deposits of coal are by far the greatest of the non-metallic minerals. According to the studies of the Utah Conservation Commission, the coal area of the state is 13,130 square miles, with 2,000 square miles more that may contain coal in paying quantities but which have not yet been sufficiently prospected to determine this question positively. The total tonnage is estimated at 19,645,800,000. The total tonnage mined up to 1909, the year of the report, was 28,000,000.

The value and tonnage of the hydrocarbon deposits of Utah can only be estimated, but run well up in the millions. One group yielded 21,465 tons in 1910-1911. The hydrocarbons thus far discovered lie mostly in the Uintah basin and cover an area of 17,000 square miles. Immense measures of asphaltum are found in limestone and sandstone formation in this region. Besides these deposits, the presence of petroleum in paying quantities has been determined. Several producing wells have been driven in the Virgin river district of southern Utah and oil has been discovered in paying quantities along the San Juan river in the extreme southeastern portion of the state. These deposits are at present remote from railroad communication and little beyond prospecting work has thus far been done. Enough has been determined, however, to prove that the state has possibilities as an oil producer.

Graphite, phosphate, kaolin, fullers' earth and gypsum are found in great quantity in the state. Silica, chemically pure, and all the building stones, including marble and onyx, are found in the state, most of them in immense quantity.



A GLIMPSE OF LAGOON, A BEAUTIFUL SALT LAKE CITY RESORT



UNION DEPOT, DENVER & RIO GRANDE AND WESTERN PACIFIC, SALT LAKE CITY

FORESTS OF UTAH

Utah's forest area is estimated by the United States Land Office at 7,808,000 acres, of which 95 per cent is within the National forests. This area contains 8,779,500,000 feet of timber, according to the estimate of the Forester of District No. 4.

The timber of the state is mostly in the canyons, on the mountain slopes and on the plateaus of the southern portion of the state. The principal species in the north are the Englemann spruce, the Douglas fir, the lodgepole pine and other species. In the south there are, besides the above, large areas of western yellow pine. In all the forests of the central and southern parts of the state are large tracts of quaking aspen, the amount of this timber in the state being estimated at 7,390,000 cords. This timber is well suited to the manufacture of wood pulp and, in connection with the Douglas fir which usually grows with it in about the right proportion, is excellent for the manufacture of paper. The Moffatt railroad, which will pass through or near the Uintah forest, will make available large forests of aspen and should add the wood pulp industry to those already in the state.

Many excellent mill and water power sites are near this timber wealth in the state. Timber on the National forests is for sale and may be bought in large or small amounts.

Rapid development of the state will doubtless make a heavy draft on the timber in it, but with the careful supervision given by the Government, the forests should be equal to the drain and be renewed and protected sufficiently to last indefinitely.



SUGAR BEETS. THE SUGAR INDUSTRY IS HIGHLY DEVELOPED IN THE STATE



AGRICULTURAL COLLEGE ADMINISTRATION BUILDING, LOGAN

constructed in the early pioneer days of native timber, chiefly spruce (known locally as white pine), Douglas fir and red fir, are still standing and are apparently as sound today as when they were built fifty years or more ago. The advent of the railroads brought better finished lumber, but not better material, to the local markets.

The great lumber companies, in their haste to acquire northern and Coast timber lands, passed by Utah and its timber wealth. This was not altogether a misfortune, as, with the other timber lands being thinned out and lumber advancing in price, Utah is left with valuable and practically untouched timber resources uncontrolled by the large interests and excellently protected by the National Government.

UTAH'S CLIMATE

One of Utah's greatest assets is its climate. Ranging from the semi-tropical to the temperate, and even to the semi-frigid, according to location and elevation, it offers to the dweller from almost any quarter of the globe the climate to which he has been accustomed, with the added advantage of meeting less variability of temperature than in his former home. And it is also able to offer him a change if he desire it.

There is here a march of the seasons, adding vigor to mind and body, unknown outside the mountain stretches. And Utah has conditions to offer that are not met in other mountain states. A weather expert puts it thus:

"On the shores of Great Salt Lake, and for over fifty miles around, the climate of climates is found. Here the air of the mountains and of the ocean is found by the happy dweller. The breezes come down from the encircling peaks and are salted by the inland sea."

The altitude of the state has the effect of lessening the air pressure, allowing more of the sun's rays to reach the earth's surface than at sea level. This aids evaporation, itself a cooling process, and, although Utah's days are the same length as those of Illinois and Italy,

The Forest Service planted in the state about 2,000,000 trees, grown in local nurseries, in 1911. Besides these, a considerable area was reforested by sowing seeds on denuded areas.

No agricultural portion of the state is far removed from a timber supply and all the mines are located in the mountains where timber is to be found.

The establishment of transportation between the forests and the markets will make the lumber industry one of importance in the state. The durability of Utah timber is well shown by the fact that buildings



EXECUTIVE BUILDING, L. D. S. CHURCH



SOME OF UTAH'S GREAT MINE AND SMELTER PLANTS

the summers are appreciably cooler. The winters of Utah are more like those of Italy than like those of Illinois, on account of fewer and less violent storms, such as follow the crests of high pressure common in the middle states. The high and more or less constant winds that prove annoying in other mountain states are absent from Utah.

Although the absolute maximum temperatures show no higher values than in the middle states, month for month, the mean minimum temperatures show much lower summer and higher winter minimum than there. It is in the absolute minimum temperatures that the widest difference is shown, comparing Utah with the middle states. Utah's winter lowest is fully twenty degrees higher than Omaha and other Missouri river points.

It is in the low average daily variability that Utah's climate excels. There is no succession of days in Utah when this variability of temperature averages five degrees, while in the middle states the daily variability averages between six and nine degrees.

The "hot nights," so distressing in many other regions, are almost unknown in Utah and one "sleeps under the covers" practically the entire year.

The length of the growing season in Utah as compared with other portions of the country will be of interest to the agriculturalist. According to the records of the United States Weather Bureau, the growing season at Salt Lake City begins two weeks earlier than at Chicago, five weeks earlier than at Duluth, more than one week earlier than at Omaha and closes almost the same length of time later, the dates being Salt Lake City Nov. 7; Omaha, Nov. 3; Chicago, Nov. 4; and Duluth, Oct. 20.

Utah has a higher average of "sunshiny days" than almost any other portion of the country. The average annual percentage of bright and cloudless days in Utah is 62, as against 54 for Minnesota, 56 for Ohio and 60 for Missouri.

Although what is known as "sensible temperature" is made up of many meteorological influences, it is probable that the relative humidity of the atmosphere affects it



UTAH FARMERS BELIEVE IN BLOODED STOCK. HERE ARE SOME OF THE STATE'S GOOD HORSES

most. In a "warm spell," of August, 1896, still well remembered locally because "warm spells" are so infrequent in Utah, the temperature at Salt Lake City and New York City was the same—96 degrees Fahrenheit. There were 648 deaths from heat prostration in New York City and 214 at Brooklyn in this period, but none at Salt Lake City. The reason was that only about 25 per cent of the possible moisture held in the air at sea level is held in the air in Utah, at the same temperature. There is no record of a death from heat prostration in Utah.

Dr. T. B. Beatty, secretary of the State Board of Health of Utah, sums up the healthfulness of Utah's climate thus:

"The Utah climate unites in a peculiar degree the elements recognized as forming an environment most suitable for healthfulness. These include high maximum sunny days, low relative humidity and moderate temperature extremes, added to which there is abundance of pure water from the mountains.

"The usual stimulating effects of a mountain climate are found in combination with a diversity of altitude and temperature in different portions of the state that adapts them to the particular needs of almost all of the chronic diseases."

It should be noted that the climate of Utah ranges from the semi-tropical of the southern counties, which possess ideal conditions for winter residence for invalids, to the temperate climate of the northern portions, offering diversity and excellence truly unique.

The best evidence of its excellence is found in the general health of its people, particularly the native born and their descendants. The diseases that claim the greatest toll among infants and adults in other places are unknown among these people.

SCENIC UTAH

Utah has much to offer the tourist, the nature lover and the sportsman. There is an awe inspiring grandeur in the main ranges of the Rocky mountains and the Sierra



UPPER FALLS, PROVO CANYON



SOUTHERN PACIFIC TRAIN ON TRESTLE ACROSS THE GREAT SALT LAKE

Nevada mountains. There is a grandeur of another type in the Wasatch, Uintah and other ranges in Utah. They have an abruptness to be found elsewhere only in the Alps. Without the usual accompaniment of foothills, they rise sheer from broad valleys where the eye may catch and sense at once their majesty and beauty.

Travelers have called Utah the Switzerland of America, but Utah has what Switzerland has not. Switzerland has its Engadine. Utah has its Utah valley, with mighty Mount Timpanagos, reflected in as fair a lake as Lemman, with living glaciers like those of Mont Blanc. Utah has its Mount Nebo, the last westward sentinel of the Rockies, to place against the Matterhorn. It has upland lakes that for wild beauty are without equal. Towering peaks, whose granite shoulders project through perpetual snow, rise above the soft greenery and rich coloring of the mountain slopes below.

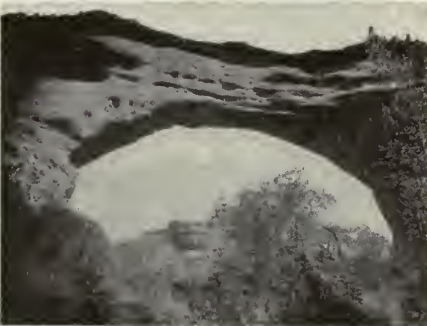
All these Switzerland has in greater or less measure. But Switzerland has not the enchanted land of southern Utah, where the erosion of the ages has carved from the sandstone a scenic wonderland the like of which does not exist elsewhere on the earth. Nor has it the silent and deserted homes of the ancient Cliff Dwellers, perched on the sides of precipices, from whose picture writings no living man has yet been able to learn the history of a race so long dead that tradition has forgotten it. Nor has Switzerland the immense natural bridges or the wonderful sweeps of desert, where nothing seems real; or the great lake, deserving of fame for its beauty not less than for the nature of its water.

Switzerland's story has been told, through many ages and in many tongues; Utah's story is just beginning.

When you leave the mountains of Switzerland, you leave Switzerland. When you leave the mountains of Utah you still have an empire to visit and enjoy without leaving Utah. You pass over great plains and mesas, view thousands of beautiful fields and orchards, see immense herds of cattle, horses and sheep, travel beside rivers and cross the great lake



IN A UTAH APPLE ORCHARD



UTAH'S SCENIC WONDERS INCLUDE NATURAL BRIDGES UNEQUALED IN SIZE.



OATS ARE A MOST PROFITABLE CROP IN UTAH'S FERTILE VALLEYS

itself on a railroad train. And above you all the time, you have such a sky as may be found in only a few places in the wide world.

If you be a sportsman, trout await your fly in a thousand brooks, which are kept well stocked by the state's fish hatcheries. In the mountains you will find deer and antelope and, higher up, mountain sheep and goat. If you desire excitement more than these can furnish, you will find wolf, bear and mountain lion. Quail, grouse and sagehen abound everywhere in Utah and all species of waterfowl are abundant, especially in the marshes along the northern shores of the great lake and along the streams that flow into it. The duck shooting around Great Salt Lake is said to be unequaled in the country. Many eastern sportsmen are sufficiently convinced of this to come to Utah each year from the Atlantic seaboard to enjoy the fall shooting. The fish and game of the state are well protected by law and are increasing in number through the intelligent methods of protection and propagation employed.

OPPORTUNITIES IN STATE

For the man who has grown weary of the cramped conditions of life in the more populous parts of the country and who longs for the independence the soil only can give, Utah holds exceptional opportunities. He can find within the borders of the state, just the climate that meets his idea of what climate should be and can produce from the soil just the class of crops he desires. Here a small acreage will easily support a family.



THOUSANDS OF CATTLE GROW FAT ON THE RANGE GRASSES IN UTAH



STEAM PLOWING ON A BIG "DRY" FARM

Should the homeseeker wish to turn to horticulture, he will find thousands of acres of as fine fruit lands as can be found between the seas waiting for him, which he can buy for a small payment down with long time in which to complete the purchase. Unimproved lands with perpetual water rights may be secured close to railroad transportation for from \$40 to \$100 an acre. These lands, if planted to fruit trees, will have a market value of from \$500 to \$2000 an acre in five years and will return a yearly income of half their value. Planted to other crops, the lands will yield a livelihood

while the fruit trees are maturing. There is always a market for the best classes of fruit and Utah produces the best. Here is what Charles Brooks, pathologist of the Bureau of Plant Industry of the Government, said Sept. 27, 1912, of Utah peaches—and peaches are only one of many fine fruits produced in Utah:

"The best class of peaches marketed from the New England orchards would hardly compare with the poorest shipped from this state. While at Tremonton yesterday I saw peaches packed and shipped as second class fruit, and some that were considered doubtful even for this class, that would be looked upon as remarkable specimens if placed immediately on the Boston market."

This comment is typical of what other experts have said of Utah fruits, and what is said of fruits may also be said of the other products of Utah's soil. Utah's products are frequently complimented by being labeled as coming from some other region that has been better advertised. This is a compliment which will be difficult to return, because when Utah's products achieve the wider fame that will inevitably be theirs when they become better known, the fact of superior Utah quality will make it hard to give the name "Utah" to the products of other places and convince the consumer that the label is truthful.

If the homeseeker desires to turn his attention to general farming or stock raising, there are lands waiting for him near vast public ranges, which can be bought much more cheaply than the fruit lands and which will produce all the ordinary food plants, as well as the grasses and grains of the north temperate zone.

There are new towns springing up all over the newer irrigated tracts, besides the older communities, in which are many business opportunities.

The prospective manufacturer will find that a small capital invested where most, or all, of the raw materials are found close at hand, will have unusual opportunities. Larger capital will have equal opportunity, in mining, agriculture, merchandizing or manufacturing.



COKE OVENS, UTAH FUEL COMPANY, SUNNYSIDE



UTAH STRAWBERRIES ARE UNEXCELLED FOR SIZE AND FLAVOR. THE YIELD IS ABUNDANT

Utah is eminently "sane" industrially and there is no place in the country where capital and labor work together more harmoniously or to better mutual advantage, and there is no field that is overcrowded.

* * *

The story of Salt Lake City and its surroundings has here been told imperfectly and incompletely. The thought has been to give to those who have not visited the region some idea of its resources and attractions in the hope that they will be induced to investigate it personally, which is the best way to learn about it.

This investigation is invited in the confident belief that the more the country is investigated the more it will prosper.

The wage-earner, the young man without capital but with an ambition to have a home and a competence, can find here his opportunity to "grow up with the country." The man with moderate means will find his chance to expand. The man of large means can place his capital here and have it protected while it earns for him more than it will earn elsewhere. The home seeker, the health seeker, the pleasure seeker, all will find here what they desire.

And all good people will be welcomed. Utah is a good, progressive, patriotic American commonwealth, whose people of all classes have a proper respect for law and morals. They are good citizens and good neighbors, industrious, intelligent and hospitable. They believe in churches, schools, books, newspapers, music, pictures and all healthy amusements. They are in favor of more people, more railroads, more mines, more mills, more farms, more towns and all that goes with them; and they will help those who bring these things. They have built a great state and have faith in it; and they desire to have others know about it and become a part of it.

Utah is not Utopia—at least, not yet. It will not shower blessings and prosperity without effort on the part of the one who seeks them. He who comes to Utah to make his home and seek his fortune must come prepared to earn what he hopes to receive. He must dig in the hills, till the soil, work with his hands or with his head or he will fail here, just as he would fail elsewhere. But if he come to Utah prepared to give to his calling intelligent application and effort, his reward is sure.

Utah does not ask you to send your capital here to lose it. It invites you to send your capital here to increase it; to bring your family here and live among us; or, if you can do neither, to come and visit us anyway to enjoy for a time what we enjoy all the time.



RYE, MILLARD COUNTY, ONE OF UTAH'S STAPLE GRAIN CROPS

A p p e n d i x



HERE are three ways of securing homestead land in Utah and each plan has distinct advantages adapted to the needs of the individual. We give herewith the substance of the laws with reference to the acquirement of homestead land and the securing of title from the Government.

RESIDENCE LAND

Under the Enlarged Homestead Act or "Smoot Act," you may, by appearing personally before the Receiver of the Land Office in Salt Lake City or before the officer in charge of the land office in the county in which you wish to locate, file on not more than 320 acres of arid land that has been designated by the Government as homestead land. If you are able to judge for yourself as to the value of the soil and the lay of the land, the only cost will be the filing fees which will amount to about \$22.00. But if you know nothing of soil or location, it would be better for you to engage the services of a land locator to show you the best locations or you may secure for a small cost township plats showing the land open for entry in any portion of the State. Locator's fees range from \$50.00 to \$125.00 according to the size of the entry and the time taken to secure the land. After the land has been located and the filing made with the Government you must take up residence on it within six months. In three years' time you may secure title to the land, providing you cultivated one-sixteenth of the total entry during the second year and one-eighth during the third year and until proof. By cultivation is meant the plowing and seeding of the land to some crop other than native grasses. Residence is required five continuous months each year.



HARVESTING OATS ON IRRIGATED LAND, RICH COUNTY



CEMENT PLANT IN BOX ELDER COUNTY

NON-RESIDENCE LAND

The locating and filing are done in the same way as on residence land with the exception of "the taking up of residence" clause. Instead of taking up residence you are required to have one-eighth of the total entry cultivated during the second year, one-fourth during the third year and this one-fourth must be kept in cultivation until the end of the fifth year or until proof is made, when title may be secured, providing you have personally supervised the cultivation.

There have been no titles issued under the new law and it is impossible to cite instances of proof to show how often the farm should be visited by the owner but the intent of the law is that the owner show good faith; so if he is able to show that he visited the farm at regular intervals and took upon himself the responsibility of the operations there should be no trouble in securing title.

The cost of improving a dry farm depends somewhat on its location but to prepare the ground for seed will cost from \$6.00 to \$8.00 per acre. The seed will cost about 60 cents per acre. If twenty acres have been cultivated the investment will be about \$250.00 including the living expenses. The harvest should be at least twenty bushels of wheat or oats to the acre and 400 bushels at 75 cents would give you a good start on the second year's work.

If the entry consists of 320 acres, one-eighth or forty acres must be cultivated the second year. Twenty acres of this amount have already been cultivated and the second year's crop on it should exceed the first year's crop by a good margin while from the cost of production can be omitted the expense of clearing the land of brush.

The two foregoing plans apply to the acquirement of land under the Enlarged Homestead Act of February 19, 1909. The third plan applies to the old Homestead Act which has been in force for a number of years and which was modified by the act of June 6, 1912. Under the provisions of this act it is possible to acquire 160 acres of vacant Government land and by residing upon it for a period of three years and showing the necessary amount of cultivation, which consists of one sixteenth of the entry beginning with the second year, and one eighth beginning with the third year and until proof, title may be secured.

WHAT IS DRY FARMING?

Briefly, "dry farming" or "arid farming" is that phase of agriculture in which crops are raised in localities which, until recent years, were regarded as having insufficient rainfall, and where irrigation is either



ONE OF UTAH'S BEET SUGAR FACTORIES, LOGAN



OGDEN CANYON, REACHED IN A FEW MINUTES BY TROLLEY FROM OGDEN CITY. THIS IS ONE OF THE MOST DELIGHTFUL PLACES TO VISIT IN THE STATE

impossible or entirely impractical. The main secret of dry farming lies in the ability of the agriculturist to till, fallow and mulch his land so that the precipitation for the entire year is retained in the soil instead of being allowed to evaporate. Added to this is the necessity for selecting hardy varieties of grains which will burrow deep enough in the soil to utilize this stored moisture.

Wheat is at present the principal crop on the arid farms of Utah, although oats, barley, rye, corn, potatoes, alfalfa, brome grass, emmer and other cereals are successfully grown. Reports on 100,000 acres of dry farm land in Cache valley show an average yield of 30 bushels of wheat to the acre, the highest being 62½ bushels.

For several years past Utah has stood second in the United States in the production of the largest number of bushels of wheat per acre.

Average bushels of wheat produced per acre for ten years:

Colorado.....	24.53
Utah.....	24.16
Idaho.....	23.84
Washington.....	23.29
Nebraska.....	16.63
Kansas.....	13.55
Minnesota.....	12.66
South Dakota.....	11.72

According to the United States Government statistics for five years as compared with all other states in the Union, Utah's average production per acre stands as follows:

PRODUCT	AS COMPARED AVERAGE	
	WITH ALL OTHER STATES	PRODUCTION PER ACRE
Wheat.....	Second....	27.1 bu.
Oats.....	Second....	43.1 "
Barley.....	First.....	40.7 "
Hay, Alfalfa....	Second....	3.8 tons
Alfalfa Seed....	First.....	340 lbs.
Sugar Beets....	First.....	12.81 tons
Potatoes.....	Second....	160 bu.

These figures are most interesting when we consider that three-sevenths of Utah's wheat crop is raised on dry farms, without irrigation, and that the five-year average shows a production double the ten-year average of the great wheat producing state of Kansas.



HORSES ON ONE OF THE GREAT UPLAND RANGES OF UTAH

Many individual yields are recorded of from fifty to sixty bushels, but a state average of 27.10 bushels is incontrovertible evidence of the wonderful fertility of the soil and advanced knowledge in the science of cultivation.

By intelligent effort, coupled with industrious application, no one need fail to surpass the general average.

From the experience of Utah farmers it is apparent that the time of seeding will vary in this state according to the locality, but experience shows that generally seeding during September and October has given the most satisfactory results.

The problem of successful dry farming concerns itself with the best method of conserving moisture. The principles of dry farming are simply those of successful conservation of soil moisture. Dry farming can only be successfully practiced, where the evaporation is so great as it is in this state, where there is an average precipitation of at least 10 inches, and where proper methods are observed. This does not mean that this precipitation, or any considerable part of it, must occur during the spring months necessarily, but there must be at least that much rainfall during the entire season.



ONE YEAR'S CHANGE

Land of the Jewish Agricultural & Colonial Association at Clarion, Sanpete county, showing the site before irrigation and the first harvest on the same land. This colony was brought to Utah through the efforts of the Commercial Club Publicity Bureau

We Have Great Faith in Utah and the Intermountain Country

With their vast treasures of wealth in mining, manufacturing, agriculture, horticulture, stock-raising, etc.

We know that Utah and the Intermountain West are only beginning to come into their own.

We know that the population of this territory will increase in the coming years, far beyond the present average public belief.

We know there are opportunities innumerable in this section, for the newcomer, in all lines of endeavor.

We know that we have here a climatic and scenic wealth second to none.

We know that in our territory we have the finest hunting, fishing and camping haunts in the land.

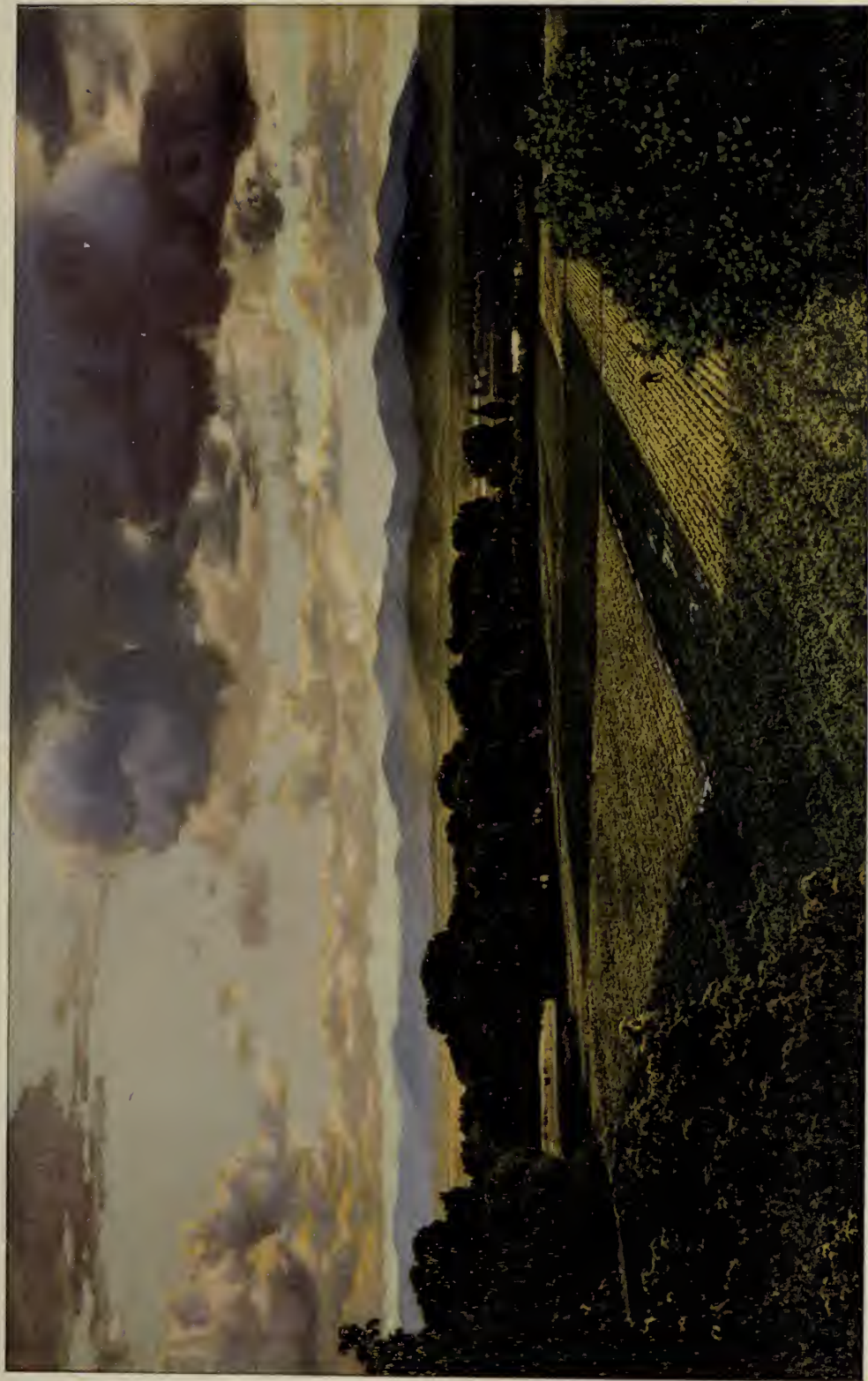
And so, because of our faith, the Oregon Short Line—Union Pacific Railroads will continue to lend every effort in preaching the gospel of "The Great West," for

The West Needs More People— More People Need To Come West

We invite you to come west with the knowledge that the Union Pacific—Oregon Short Line Railroads do and ever will provide the best possible service in every branch of operation, backed by courteous attention of employes and the eternal protection of automatic electric block signals.

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THE GARDEN OF UTAH, A SUCCESSION OF GREEN, IDYLIC VALLEYS. SALT LAKE CITY LIES IN THE CENTER OF THIS GARDEN



LAKE MARY IN THE WASATCH RANGE

